



Infrastructure, environment, buildings

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Subject

Allied Paper, Inc /Portage Creek/Kalamazoo River Superfund Site  
Time-Critical Removal Action – Former Plainwell Impoundment  
Monthly Report (November 2008)

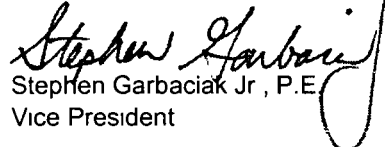
Dear Mike

Attached is the 21<sup>st</sup> monthly progress report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site Time-Critical Removal Action (TCRA). This progress report is submitted in accordance with Section 19A of the February 2007 Administrative Settlement Agreement and Order on Consent (AOC) for Removal Action (Docket No. V-W-07-C-863).

If you have any questions, please do not hesitate to contact me.

Sincerely,

ARCADIS

  
Stephen Garbaciak Jr, P.E.  
Vice President

Attachment

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December 15, 2008

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US EPA RECORDS CENTER REGION 5



407012

**MONTHLY REPORT FOR THE ALLIED PAPER, INC./PORTAGE CREEK/  
KALAMAZOO RIVER SUPERFUND SITE  
TIME-CRITICAL REMOVAL ACTION – FORMER PLAINWELL IMPOUNDMENT**

**REPORT #21, NOVEMBER 2008**

**PREPARED BY ARCADIS  
DECEMBER 15, 2008**

**ON BEHALF OF THE KALAMAZOO RIVER STUDY GROUP**

**SUBMITTED TO**

**MICHAEL RIBORDY, ON-SCENE COORDINATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

**Monthly Report for the Allied Paper, Inc./Portage Creek/  
Kalamazoo River Superfund Site TCRA – Former Plainwell Impoundment**

**REPORT #21, NOVEMBER 2008**

**Significant Developments and Activities During the Period**

- On November 5, the Kalamazoo River Study Group (KRSRG) submitted notification to the United States Environmental Protection Agency (USEPA) and Michigan Department of Environmental Quality (MDEQ) that installation of the post-construction monitoring wells would begin during the week of November 10. This notification was made pursuant to Section 17C of the AOC. These wells are described in the Former Plainwell Impoundment Time-Critical Removal Action Design Report Section 5.7, as well as Section 3 4 6 of the Area 1 Supplemental Remedial Investigation/Feasibility Study Work Plan.
- On November 6 and 12, the KRSRG received copies of analytical data for split samples collected by USEPA.
- On November 7 and 20, the KRSRG submitted copies of analytical data from TCRA sampling activities to USEPA.
- On November 12, the KRSRG submitted the 67<sup>th</sup>, 68<sup>th</sup>, 69<sup>th</sup>, 70<sup>th</sup>, and 71<sup>st</sup> *Weekly Construction Report for the Plainwell TCRA* to USEPA and MDEQ
- On November 14, the KRSRG submitted the 72<sup>nd</sup> *Weekly Construction Report for the Plainwell TCRA* to USEPA and MDEQ.
- On November 17, the KRSRG submitted the 20<sup>th</sup> *Monthly Report for the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site TCRA* for October 2008 to USEPA
- On November 19, representatives from the KRSRG, USEPA, MDEQ, and Michigan Department of Natural Resources attended the monthly Stakeholder's Meeting in Plainwell.
- On November 20, the KRSRG submitted survey coordinate data to MDEQ for soil cores collected by MDEQ during the week of October 13 and 20
- On November 21, the KRSRG submitted the 73<sup>rd</sup> *Weekly Construction Report for the Plainwell TCRA* to USEPA and MDEQ.
- On November 25, the KRSRG and USEPA conducted a briefing for local members of the media

**Data Collected and Field Activities Conducted During the Period**

- During the week of November 3, the KRSRG continued excavation of Removal Area 13A, continued decommissioning and removal of Staging Area 5S, continued removal and decontamination of resuspension controls, continued installation of topsoil and seeding in newly exposed floodplain soils

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due to falling river elevations, continued restoration activities in the completed portions of Removal Area 13A, continued planting trees and shrubs that had been deferred from the spring to the fall due to species availability, and continued removal of the Water Control Structure (WCS). Three soil confirmation samples (TS20249 through TS20251) were collected from Removal Area 13A. Two surface water samples (TS30099 and TS30100) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Removal Area 13A for polychlorinated biphenyl (PCB) analysis. A rinse blank (TS30101) was also collected. Wastewater samples W\_SA5S\_Influ\_0023, W\_SA5S\_MidA\_0020, and W\_SA5S\_EffluA\_0020 were collected from the water treatment system located at Staging Area 5S. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Bellevue, Michigan for disposal.

- During the week of November 10, the KRSG continued excavation of Removal Area 13A, continued decommissioning and removal of Staging Area 5S, continued removal and decontamination of resuspension controls, began installation of post-construction monitoring wells, and continued removal of the WCS. Three soil confirmation samples (TS20252 through TS20254) and one duplicate sample (TS20255) were collected from Removal Area 13A and Upland Area 13A1. The USEPA collected a split sample of TS20252 (APS-111108-45-SD/TS20252). Two surface water samples (TS30102 and TS30103) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Removal Area 13A for PCB analysis. A rinse blank (TS30104) was also collected. Two soil samples (MW-13 [6-8'] and MW-14 [4-6']) were collected from pilot borings installed prior to placing post-construction monitoring wells. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Bellevue, Michigan for disposal.
- During the week of November 17, the KRSG hosted the monthly Stakeholder's Meeting, completed decommissioning and removal of Staging Area 5S, continued removal and decontamination of resuspension controls, continued installation of post-construction monitoring wells, continued restoration activities in Removal Areas 13A and 13B, began grading the island adjacent to the existing spillway, removed a pair of sheets remaining from the Phase 1 Cofferdam, and continued removal of the WCS. Two surface water samples (TS30105 and TS30106) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Removal Area 13A for PCB analysis. A rinse blank (TS30107) was also collected. One set of wastewater samples (W\_SA4N\_X\_0023) was collected from the water treatment system located at Staging Area 4N. Each set of wastewater samples consists of one influent (e.g., W\_SA4N\_Influ\_0023), two mid-point (e.g., W\_SA4N\_MidA\_0023 and W\_SA4N\_MidB\_0023), and two effluent samples (e.g., W\_SA4N\_EffluA\_0023 and W\_SA4N\_EffluB\_0023). One PCB wipe sample (VT-1 111808) was collected from the vacuum truck used to remove untreated water from Staging Area 5S to ensure that

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the truck was properly decontaminated prior to demobilizing from the site. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Bellevue, Michigan for disposal.

- During the week of November 24, the KRSG continued restoration activities in Removal Area 13A, completed grading of the island downstream of the existing spillway, began removing the remaining sediment and access across the Phase 2 Cofferdam, and continued removal of the WCS. Two surface water samples (TS30108 and TS30109) were collected from locations 300 feet downstream and 200 feet upstream, respectively, of Removal Area 13A for PCB analysis. A duplicate sample (TS30110) and a rinse blank (TS30111) were also collected. One set of wastewater samples (W\_SA4N\_X\_0024) was collected from the water treatment system located at Staging Area 4N. Table A summarizes the samples collected. Solidified non-TSCA material from the staging areas was loaded into trucks and transported to the Ottawa County Farms Landfill in Coopersville, Michigan or the C&C Landfill in Marshall, Michigan for disposal; solidified TSCA material was transported to the Wayne County Landfill in Bellevue, Michigan for disposal.
- As of November 30, approximately 80,000 cubic yards of material had been excavated from Removal Areas 1, 2A and 2B, 3A and 3B, 4A and 4B, 5, 6A and 6B, 7, 8, 9A, 9B, 10A, 10B, 11A, 11B, 12A, 12B, 13A, 13B, Mid-Channel Areas A, B, and C, the Phase 1 Cofferdam Area, the Phase 2 Cofferdam Area, Upland Areas 3A1, 3A2, 4A1, 6B1, 10B1, 11A1, 12A1, 13A1, and Islands 1, 2, and 3.

**Laboratory Data Received During the Period**

- During the week of November 3, the KRSG received analytical data for soil confirmation samples TS20249 through TS20251, surface water samples TS30089 through TS30095 (collected in October), and wastewater samples W\_SA5S\_Influ\_0023, W\_SA5S\_MidA\_0020, and W\_SA5S\_EffluA\_0020.
- During the week of November 10, the KRSG received analytical data for soil confirmation samples TS20252 through TS20255, USEPA split sample APS-111108-45-SD/TS20252, pilot boring soil samples MW-13 (6-8') and MW-14 (4-6') and target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), PCBs, TCL pesticides, total organic carbon (TOC) and Resource Conservation and Recovery Act (RCRA) metal data for soil sample TS10005 (collected in October). The diesel range organics (DROs) and gasoline range organics (GROs) data were received in October. Soil sample TS10005 was collected from over-excavated floodplain material in Removal Area 13A to potentially be used as cover material in upland areas.

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- During the week of November 17, the KRSG received analytical data for surface water samples TS30096 through TS30098 (collected in October), wastewater sample set W\_SA4N\_X\_0023, and PCB wipe sample VT-1 (111808)
- During the week of November 24, the KRSG received analytical data for surface water samples TS30099 through TS30101.
- The KRSG is awaiting analytical results for surface water samples TS30102 through TS30111 and wastewater sample set W\_SA4N\_X\_0024.

**Issues Encountered and Actions Taken**

- As established in the TCRA Design Report, some floodplain areas may be over-excavated to include material with PCB concentrations believed to be less than 5 milligrams per kilogram (mg/kg). This material can be sampled and potentially reused as cover material to enhance the riparian habitat in upland areas located outside the removal scope of the TCRA. A nine-part composite sample (TS10005) was collected on October 29 from the potentially re-usable soil stockpiled from Removal Area 13A and analyzed for DROs, GROs, TCL VOCs, TCL SVOCs, PCBs, TCL pesticides, TOC, and RCRA metals. A lead concentration of 1,090 mg/kg was detected in the sample. The analytical results were compared to the applicable Part 201 cleanup criteria and Part 213 risk-based screening levels (RBSLs) provided in MDEQ's Remediation and Redevelopment Division (RRD) Operational Memorandum No. 1 (Table 2, Column #19, Direct Contact Criteria & RBSLs), issued by the MDEQ RRD on January 23, 2006. The lead concentration exceeds the Direct Contact Criterion RBSL of 400 mg/kg. As such, the stockpiled material was transported offsite for disposal, and not used for cover material.
- Installation of the post-construction monitoring well network was temporarily postponed until the WCS and Phase 2 Cofferdam were completely removed and the groundwater and surface water were allowed to return to their natural elevations, unaffected by any water diversion structures in the river. Pilot borings will be installed at the monitoring well locations and temporary piezometers will be used to monitor the water level in order to determine when the ground and surface water has returned to their natural elevations.

**Developments Anticipated During the Next Reporting Period**

- During the week of December 1, the KRSG is scheduled to continue excavation activities in Removal Area 13A and in the Phase 2 Cofferdam Area; continue removal of the WCS, continue removal and decontamination of resuspension controls and project equipment; continue removal of access across the Phase 2 Cofferdam; continue restoration activities in Removal Area 13A; and continue loading and transporting solidified material to the appropriate landfill.

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- During the week of December 7, the KRSG is scheduled to continue excavation activities in Removal Area 13A and in the Phase 2 Cofferdam Area, continue removal of the WCS, continue removal of access across the Phase 2 Cofferdam; continue removal and decontamination of resuspension controls and project equipment; continue restoration activities in Removal Area 13A, and continue loading and transporting solidified material to the appropriate landfill
- During the week of December 14, the KRSG is scheduled to complete excavation activities in Removal Area 13A and in the Phase 2 Cofferdam Area; begin removal of the Phase 2 Cofferdam, continue removal and decontamination of resuspension controls and project equipment; continue removal of the WCS; begin decommissioning of Staging Area 4N, host the monthly Stakeholder's Meeting; and continue loading and transporting solidified material to the appropriate landfill
- During the week of December 21, the KRSG is scheduled to continue removal of the Phase 2 Cofferdam; continue removal of the WCS, continue removal and decontamination of resuspension controls and project equipment, and continue decommissioning of Staging Area 4N
- During the week of December 28, the KRSG is scheduled to complete removal of the Phase 2 Cofferdam; continue removal and decontamination of resuspension controls and project equipment, and complete decommissioning of Staging Area 4N.
- The KRSG will continue to submit the *Weekly Construction Report for the Plainwell TCRA* to USEPA and MDEQ in December.
- The KRSG will continue to submit copies of analytical data from TCRA sampling activities to USEPA in December.
- Throughout December, the KRSG will, as necessary, continue to submit Subcontractor Qualification Notifications to USEPA, as required by Paragraph 11 of the TCRA AOC

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**Table A — Summary of Samples Collected and Data Received in November 2008**

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Soil Confirmation Samples									
TS20249	11/03/08	11/05/08	084618	KAR Labs	RA 13A, Grd 8B	PCBs	0.54 mg/kg	5 mg/kg	None
TS20250					RA 13A, Grd 7A	PCBs	< 0.33 mg/kg	5 mg/kg	None
TS20251					RA 13A, Grd 7B	PCBs	2.5 mg/kg	5 mg/kg	None
TS20252 <sup>1</sup>	11/11/08	11/12/08	084756	KAR Labs	RA 13A, Grd 5A TSCA	PCBs	4.2 mg/kg	5 mg/kg	None
APS-111108-45-SD/TS20252	11/11/08	11/12/08	0811204	TriMatrix Laboratories	RA 13A, Grid 5A TSCA	PCBs	1.4 mg/kg J	5 mg/kg	None
TS20253	11/11/08	11/12/08	084756	KAR Labs	RA 13A, Grd 6A TSCA	PCBs	1.8 mg/kg	5 mg/kg	None
TS20254					Upland Area 13A1, Grid 6	PCBs	1.0 mg/kg	5 mg/kg	None
[TS20255]						[PCBs]	[1.0 mg/kg]	[5 mg/kg]	[None]
Post-Construction Monitoring Well Pilot Boring Soil Sample									
MW-13 (6-8')	11/10/08	11/12/08	084756	KAR Labs	Pilot boring installed prior to setting post-construction monitoring well MW-13	PCBs	< 0.33 mg/kg	No Action Limit	None
MW-14 (4-6')	11/10/08	11/12/08	084756	KAR Labs	Pilot boring installed prior to setting post-construction monitoring well MW-14	PCBs	< 0.33 mg/kg	No Action Limit	None
Soil Reuse Sample									
TS10005	10/29/08	11/12/08 (TAL)	TCRA96_SDSP (TAL)	KAR Labs and TAL	9-part composite sample from over-excavated floodplain material in Removal Area 13A to potentially be used as cover in upland priority areas	PCBs, TCL VOCs, TCL SVOCs, RCRA Metals, DROs, GROs, TOC, and TCL Pesticides	0.16 mg/kg	1 mg/kg	Do not use as cover. Lead concentration (1,090 mg/kg) exceeded applicable criteria <sup>2</sup> . Material transported to landfill for disposal. DRO and GRO data received from KAR Labs in October.
Surface Water Samples									
TS30092 [TS30089]	10/15/08	11/05/08	TCRA91_SDSP	TAL	300' downstream RA 13A	PCBs [PCBs]	< 0.051 µg/L [ $< 0.048 \mu\text{g/L}$ ]	No Action Limit [No Action Limit]	None [None]
TS30090					200' upstream of RA 13A	PCBs	< 0.051 µg/L	No Action Limit	None
TS30091					Rinse Blank	PCBs	< 0.060 µg/L	No Action Limit	None
TS30093	10/23/08	11/07/08	TCRA93_SDSP	TAL	300' downstream RA 13A	PCBs	< 0.051 µg/L	No Action Limit	None
TS30094					200' upstream of RA 13A	PCBs	< 0.051 µg/L	No Action Limit	None
TS30095					Rinse Blank	PCBs	< 0.051 µg/L	No Action Limit	None
TS30096	10/30/08	11/19/08	TCAR95_SDSP	TAL	300' downstream RA 13A	PCBs	< 0.051 µg/L	No Action Limit	None
TS30097					200' upstream of RA 13A	PCBs	< 0.050 µg/L	No Action Limit	None
TS30098					Rinse Blank	PCBs	< 0.054 µg/L	No Action Limit	None
TS30099	11/06/08	11/29/08	TCAR98_SDSP	TAL	300' downstream RA 13A	PCBs	< 0.057 µg/L	No Action Limit	None
TS30100					200' upstream of RA 13A	PCBs	< 0.057 µg/L	No Action Limit	None
TS30101					Rinse Blank	PCBs	< 0.048 µg/L	No Action Limit	None

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**Table A — Summary of Samples Collected and Data Received in November 2008**

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
Surface Water Samples (cont'd)									
TS30102	11/13/08	NR	NR	TAL	300' downstream RA 13A	PCBs	-	-	-
TS30103					200' upstream of RA 13A	PCBs	-	-	-
TS30104					Rinse Blank	PCBs	-	-	-
TS30105	11/20/08	NR	NR	TAL	300' downstream RA 13A	PCBs	-	-	-
TS30106					200' upstream of RA 13A	PCBs	-	-	-
TS30107					Rinse Blank	PCBs	-	-	-
TS30108	11/25/08	NR	NR	TAL	300' downstream RA 13A	PCBs	-	-	-
TS30109					200' upstream of RA 13A	PCBs	-	-	-
[TS30110]						[PCBs]	[-]	[-]	[-]
TS30111					Rinse Blank	PCBs	-	-	-
Wastewater Samples									
W_SA4N_Influ_0023	11/17/08	11/18/08	084844	KAR Labs	Staging Area 4N, Discharge 23, influent sample	PCBs	0.2 µg/L	No Action Limit	None
W_SA4N_MidA_0023					Staging Area 4N, Discharge 23, midpoint sample, right side	PCBs	< 0.1 µg/L	No Action Limit	None
W_SA4N_EffluA_0023					Staging Area 4N, Discharge 23, effluent sample, right side	PCBs, TSS, P	< 0.1 µg/L	0.2 µg/L per discharge, Monthly Average of 2.6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0.08 mg/L, no action limit
W_SA4N_MidB_0023					Staging Area 4N, Discharge 23, midpoint sample, left side	PCBs	< 0.1 µg/L	No Action Limit	None
W_SA4N_EffluB_0023					Staging Area 4N, Discharge 23, effluent sample, left side	PCBs, TSS, P	< 0.1 µg/L	0.2 µg/L per discharge, Monthly Average of 2.6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0.08 mg/L, no action limit
W_SA4N_Influ_0024	11/26/08	NR	NR	KAR Labs	Staging Area 4N, Discharge 24, influent sample	PCBs	-	-	-
W_SA4N_MidA_0024					Staging Area 4N, Discharge 24, midpoint sample, right side	PCBs	-	-	-
W_SA4N_EffluA_0024					Staging Area 4N, Discharge 24, effluent sample, right side	PCBs, TSS	-	-	-
W_SA4N_MidB_0024					Staging Area 4N, Discharge 24, midpoint sample, left side	PCBs	-	-	-
W_SA4N_EffluB_0024					Staging Area 4N, Discharge 24, effluent sample, left side	PCBs, TSS	-	-	-
W_SA5S_Influ_0023	11/05/08	11/06/08	084666	KAR Labs	Staging Area 5S, Discharge 23, influent sample	PCBs	< 0.1 µg/L	No Action Limit	None
W_SA5S_MidA_0020					Staging Area 5S, Discharge 23, midpoint sample, right side	PCBs	< 0.1 µg/L	No Action Limit	None
W_SA5S_EffluA_0020					Staging Area 5S, Discharge 23, effluent sample, right side	PCBs, TSS, P	< 0.1 µg/L	0.2 µg/L per discharge, Monthly Average of 2.6 x 10-5 µg/L	None TSS = <4 mg/L, Action Limit = 45 mg/L, P=0.65 mg/L, no action limit

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**Table A — Summary of Samples Collected and Data Received in November 2008**

Sample ID	Sample Date	Data Received	Sample Delivery Group	Laboratory	Sample Location	Analysis Conducted	PCB Result	PCB Action Limit	Response Action
<b>PCB Wipe Sample</b>									
VT-1 (111808)	11/18/08	11/20/08	084870	KAR Labs	Wipe sample from vacuum truck used to transport untreated water from Staging Area 5S	PCBs	0.3 µg per 100 cm <sup>2</sup>	10 µg per 100 cm <sup>2,3</sup>	None

**Notes:**

- 1 - Split sample collected by USEPA
- 2 - Analytical results compared to applicable Part 201 cleanup criteria and Part 213 RBSLs provided in MDEQ's RRD Operational Memorandum No. 1 (Table 2, Column #19, Direct Contact Criteria & RBSLs)
- 3 - The decontamination standard for non-porous materials previously in contact with PCB-containing liquid according to Federal Regulations (Title 40, Chapter 1, Subchapter R, Part 761.79-3)
- J - The compound was positively identified, however, the associated numerical value is an estimated concentration only
- \* USEPA split samples are shown in bold and italicized font
- \* Duplicate samples are shown in brackets
- \* Analytical results have not been validated

DRO - diesel range organic  
 GRO - gasoline range organic  
 MDEQ - Michigan Dept. of Environmental Quality  
 NR - not received  
 P - phosphorus  
 PCBs - polychlorinated biphenyls  
 RA - Removal Area  
 RBSL - Risk Based Screening Level  
 RCRA - Resource Conservation and Recovery Act  
 RRD - Remediation Redevelopment Division  
 SVOCs - semivolatile organic compounds

TAL - TestAmerica Laboratories  
 TCL - target compound list  
 TOC - Total Organic Carbon  
 TSCA - Sample collected from portion of sampling grid with PCB concentrations greater than 50 mg/kg prior to excavation  
 TSS - total suspended solids  
 VOCs - volatile organic compounds  
 cm<sup>2</sup> - square centimeters  
 mg/kg - milligrams per kilogram  
 mg/L - milligrams per liter  
 µg/L - micrograms per liter